

PROPERTY OF
WINDY CITY GROTTTO
LIBRARY
THE CASCADE CAVER

Vol. 15 #11-12



Official Publication of the
CASCADE GROTTTO N. S. S.

Volume 15 No. 11-12

Editor: Rod Crawford

November-December, 1976

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

AN ALPINE KARST TOPOGRAPHY IN THE
DOCK BUTTE-WASHINGTON MONUMENT AREA



Mount Baker from Dock Butte

F.S. R-6
RECEIVED
DEC 7 1976
LANDS &
M. S.

THE CASCADE CAVER is published ten times a year by the Cascade Grotto of the National Speleological Society. Subscription rate is \$4.00 per year. Full grotto dues of \$6.00 includes a subscription to the quarterly Northwest Caving. All payments should be made to the grotto treasurer, Chuck Coughlin, 6433 S. 128th Pl., Seattle Washington 98178.

COMING EVENTS

December 18, Saturday. Cascade Grotto Christmas Party. See details on back cover.

December 20, Monday. NO DECEMBER MEETING THIS YEAR.

January 17, Monday. Regular Cascade Grotto Meeting, 8:00 PM, 1117 36th Ave. E., Seattle. Installation of new officers.

January sometime. North Chuckanut Talus Caves for moth studies. Call Chuck Ross, 324-9349, or Rod Crawford, 543-4486 late evenings.

February 1. DEADLINE for January-February Cascade Caver.

February 19-21, Washington's Birthday Weekend. Western Speleo-Educational Seminar, hosted by Oregon Grotto at the Marshall Recreation Center, Vancouver, Wash. Details in next issue.

NEW MEMBERS

Dave Brannon 726 Pasadena St., Tacoma WA 98466 564-8209
Dave Sexton 7404 NE 143rd, Bothell WA 98011 822-9558

NEW PHONE NUMBERS & ADDRESSES

Dave Jones (206) 256-0587 (the previously reported number was wrong).
Dave Walker 486-1912
Barb MacLeod 1307 1/2 Kirkwood, Austin, TX 78722

NEWS AND NOTES

CORRECTION: The article on Three Mile Creek Cave that appeared in the "25 Years Ago" column in the September issue (p. 104) was written by Bill Halliday, not Peter McLellan.

+ + + + + + + +
"Brand X" reports that five Xanadu Grotto members have contracted "Condromalacia patella", or, in other words, softening of the knees...
* * * * *

LATEST FROM ALASKA: Jay Rockwell, in a card to Bill Halliday, mentions that he "found what may be some caves in dolomitic marble, north of Wiseman, high up..." + + + + +
As of Oct. 18, 1976, the state has 550 copies of Caves of Washington left. Who knows--it may some day be quite a collector's item.
* * * * *

Gerrit Van Der Laan of B.C. Speleo Research reports that 1000' of passage is now known in the eight caves in the Chilliwack Valley, B.C. interior.
+ + +

The book "Cave Minerals" is now available from the NSS Bookstore (Cave Avenue, Huntsville, Ala. 35810) to non-members in hardbound only for \$15.00. Soft-bound copies are still available to members for \$7.50, hardbound for \$9.00.

+ + + + +
NEWS AND NOTES CONTINUED ON PAGE 128.

+ + + + +

This month's cover is a reproduction of the original cover from our feature.

FEATURE ARTICLE

REPORT OF GEOLOGIC INVESTIGATION*

Job No. G-286

Requesting Unit: Mount Baker National Forest
Bellingham, Washington

Description of Project: A field and research study of limestone deposits forming a karst topography in a subalpine area for possible designation as a Geologic Interest Area.

Lands Involved: Sec. 5, T36N, R8E; Sec. 32, T37N, R8E; S 1/2 sec. 31, T37N, R8E; Sec. 1, E 3/4 sec. 2, T36N, R7E; S 1/2 sec. 36, SE 1/4 sec. 35, T37N, R7E. Total acres: 3200.

Geologist and Dates of Examination: William A. Long
September 12 and 13; October 5, 1972.

Accompanied by: Alone

The Dock Butte and Washington Monument Peak limestone deposits are best reached by way of the Dock Butte trail which begins at the end of road No. 3770. The Washington Monument Peak deposit is difficult of access. It is best reached by traveling 1.5 miles without trail cross country southwest from about the 4500-foot level on the northwest ridge of Dock Butte. The way abruptly descends 1200 feet, crosses an unnamed swampy valley, and ascends 550 feet to the limestone deposit in a broad saddle between Washington Monument Peak and the next mountain to the north.

As exposed in cliffs on the northeast flank of Washington Monument Peak and above Blue Lake, the thickness of the limestone beds apparently does not exceed 200 or 300 feet. Sinkholes exceeding this depth, therefore, are highly improbable unless, of course, the beds are steeply inclined or vertical. The steepest dip observed was 35 degrees. The deepest sinkhole found was approximately 30 feet deep, and others may exist that exceed this depth.

The karst area of the northern Washington Monument Peak deposit is developed on nearly flat-lying limestone beds approximately 100 feet thick. Here are numerous sinkholes up to 30 feet in depth, many of which were still snow-plugged as late as October 4th. The karst topography is developed on a gently rolling surface over an area 1200 feet long east-west and 1000 feet wide.

The unnamed valley between Dock Butte and Washington Monument ridge is broad and relatively flat. It contains many pretty meadows and conifer groves and seems to be a favorite elk and deer haunt, as indicated by widespread and obvious game signs such as trails, droppings, beds, and cropped vegetation. A well-used game trail extends across the face of Washington Monument ridge and into the karst area.

It was not determined if the shallow sinks were underlain by caverns and represent collapsed roofs, or if they are holes which have been dissolved out. The exposed limestone walls are vertically fluted by the action of running water, the flutes dissolving out by falling rain and surface water.

*This report is copied from the original in the files of the U.S. Forest Service in Seattle. It was prepared in response to the Grotto's original Geological Area proposal.

Although the limestone areas appear not to be underlain by caverns [Ha! See p. 135--ed.], an alpine karst topography is rather unique, and the Dock Butte-Washington Monument limestone deposits with their distinctive surface features should be recognized as a geological interest area.

December 1, 1972

William A. Long, Geologist

+ + + + + + + + + + + + +

MORE NEWS, MORE NOTES

According to the Inner Mountain News, the 1977 Rocky Mountain Regional will be in the Brush Creek area, about 20 miles north of Vernal, Utah--presumably on Labor Day weekend. Big Brush Creek Cave, in this area, was bottomed on August 7 at -858 feet.

* * * * *

The Speleograph reports that Harry Reese, noted pioneer of Washington caving and discoverer of several of the Mt. St. Helens lava tubes, died this November. I was fortunate enough to meet Mr. Reese only once; I am sure that his loss will be regretted by everyone concerned with the area and its caves.

+ + + + + + +

THE OCTOBER MEETING: The Christmas Party (at Annie & Curt's Clear Lake Paradise this year) was discussed, along with some trip planning. A new person, Eileen Craige, was introduced. Bill Zarwell, an old member in transit through town, was present, and read us some passages from his Belizean cave trip log. A Dock Butte Task Force meeting was announced for Oct. 31st--this duly occurred.

* * * * *

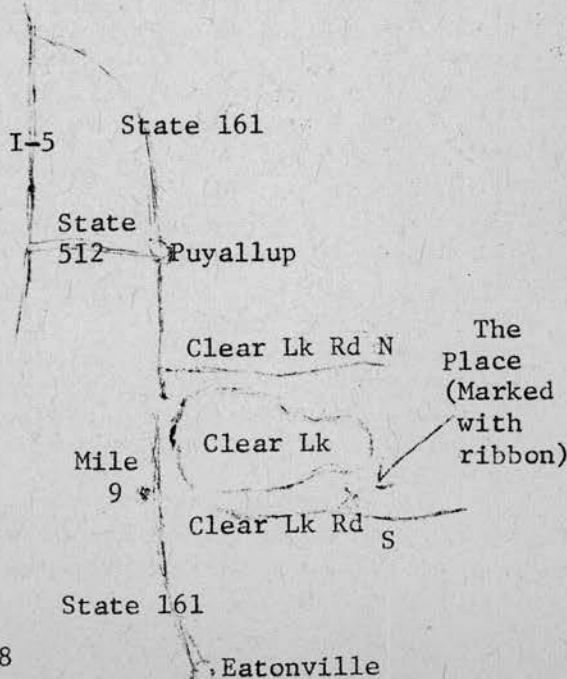
THE NOVEMBER MEETING: 14 members and guests attended. There was much discussion of the Christmas Party--see announcement elsewhere in this issue. We resolved that there will be no December meeting. Nominations: Russ Turner and Write-in for chairman; Anne Ruggles and Ed Crawford for Vice-Chairman; Chuck Coughlin unopposed for his third term as Secretary-Treasurer. Your ballot is attached if you should be voting; please follow the instructions thereupon. The program included Russ Turner's slides from his trip to Alabama, W. Virginia, and other "furrin" parts, plus a few trip report slides.

+ + + + +

The November D.C. Speleograph reports that "Texas and western cavers working this summer in the Silvertip Basin in Montana's Bob Marshall Wilderness connected a complex of caves and pushed the system to -1215 feet..." Newell Campbell reports that it isn't quite that way, since the connection wasn't made. It seems there is one pit which is believed to connect two parts of the Silvertip System, but nobody has dropped it yet, to actually make the connection (presuming that's what it is).-----W. R. H.

+ + + + + + +

MAP AT RIGHT SHOWS LOCATION OF XMAS PARTY, AT THE HOME OF CURT BLACK AND ANNIE RUGGLES ON CLEAR LAKE ROAD SOUTH. THE DRIVEWAY WILL BE MARKED WITH RIBBON.



TRIP REPORT SECTION

Strolling in the Canadian Rockies by Bill Halliday

Prior to cancellation of the Nakimu convention, Dale Green (chairman of the Salt Lake Grotto) and I had been planning a week of caving in the Canadian Rockies. So we decided to go ahead with it anyway. First was Cody's Cave, a few miles north of Phil Whitfield's current home at Nelson, B.C.--a thoroughly pleasant little cave, probably larger than any limestone cave in Washington State. Then came The Cave at Ainsworth Hot Springs, about which I will write separately and only mention here that it would be an ideal place for a future regional convention. No caver going anywhere near that part of B.C. should miss this one. Then on to another The Cave, this one the historic hot spring cave at Banff, shaped like an oversized igloo. A couple more up the hillside, too. Then we wasted some time, trying to get to some glacier snouts, hunting glacier caves, but finding roads wiped out by floods earlier in the year.

Our main effort was to be a hike to Castleguard Cave, for which the Parks Branch does not grant permission for summer penetration because of sudden flooding conditions. Recently they had installed a gate, and gave us permission to go as far into the cave as the gate, in search of historic signatures. It seems that the Canadians and British who have been so gung-ho about this great cave have slightly overlooked its history; it was even pictured in a 1925 National Geographic magazine. And so on the auspicious morning of September 1, Dale and I strolled from the Ice Fields Parkway to Castleguard and back. It was one of the most fascinating days of my life. Originally we had planned to wait a day so Chuck Coughlin and Russ Turner could join us, but the end of the clear weather was approaching so we decided we could not wait--correctly, as it turned out.

Parking area for the hike is at a wire "gate" blocking the old highway where it crosses the north fork of the Saskatchewan River. At this point, the river suddenly drops out of a vast glacier basin into a purgatory cave in limestone which may once have been a solutional cavern. I have nothing good to say about the next three miles of hiking which brought us to the snout of the Saskatchewan Glacier except that it got us there. Much of it is an old road, built in World War II commando training, and now washed away here and there. We did not cross to check the broad, thin snout itself, but were pleasantly amazed to find the river emerging from a glacier cave in glare ice, penetrable for about 50 feet on a shelf alongside the roaring river, with plenty of room to sit up, and perhaps 30 feet wide. This curious ice was covered with moraine extending many dozen yards further down-basin than the main snout, which was composed of what we have come to consider normal granular blue-white ice. Fluting was much less marked on this very dense ice than in any other glacier cave of comparable size which I have ever seen.

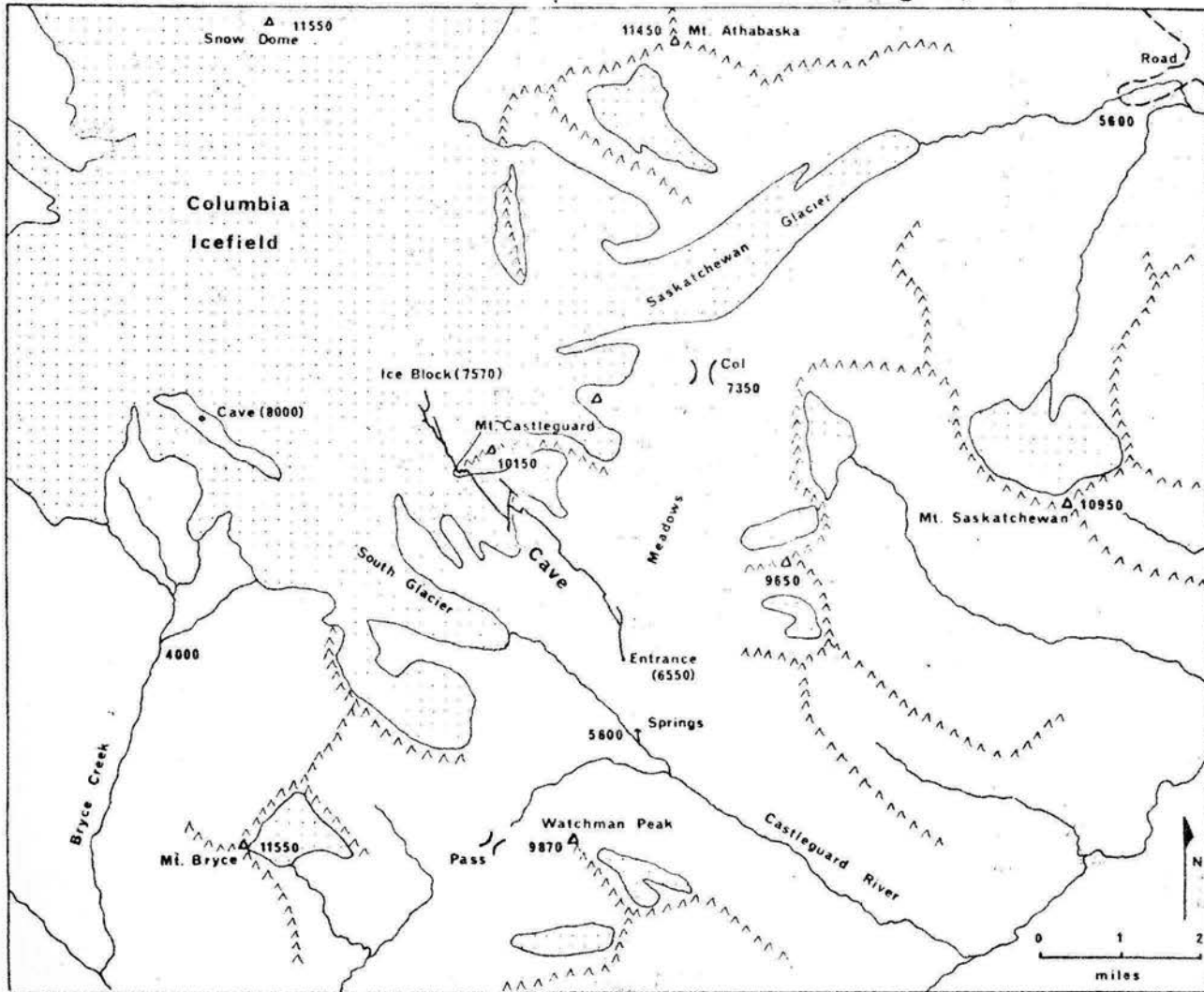
At this time of year, the next mile consists of going up the moraine alongside the glacier until it is possible to get out onto the glacier itself where the going is easy. It is a fascinating lesson in compaction and solifluctuation but very tough going with overnight gear, with many gullies to be fought. Immediately to the left are 3,000 foot cliffs, then a hanging glacier in a small cirque. Along the glacier margin are some fine moulins. Beyond the glacier the main body of the Columbia Ice field gradually comes more and more into view beyond the upper reaches of Mt. Athabaska and a tributary glacier. The second mile along the glacier is increasingly delightful, with going much easier and a broad limestone col between Mts. Saskatchewan and

increasingly prominent. Dale chose to bomb straight up the moraine to the col but I was tired enough to want to continue up the glacier, then contour back around, into the col.

The col is about 1 1/2 mile wide and about four miles long. All or nearly all limestone, it contains more karst than I can remember seeing in the entire state of Washington. Limestone pavement, sinks, sinking streams and heather meadows characterize the northern half which has no surface stream drainage at all. The second half is a bit lower, has some meandering surface streams, grassier meadows and patches of alpine forest: some of the most beautiful scenery I have seen anywhere in the world, and a sense of total isolation unmatched in my wilderness experience.

We had no exact directions to Castleguard Cave and wasted about 90 minutes hunting around in the forested upper slopes of the Castleguard River gorge. A prominent trail parallel to the gorge helped not at all; evidently it is the main pack route to Castleguard Mountain. Closer to the gorge, however, and

From British Cave Research Association Bulletin #5, August, 1974



about 1/4 mile up-canyon from the stream that drains the lower part of the col, we found a lesser trail that wound down a small gully, with horse prints. We lost it and struggled around on the slopes, then heard running water to our right and quickly found the bare limestone cliffs and streamcourses of the resurgences from the lower levels of the cave, then the cave itself. As big as the proverbial barn door, it probably would remain undiscovered to this day were it not for these intriguing routes that point the way to it.

The gate is less than 100 feet inside. We found fresh mud on top of it, and had seen two pair of boot prints along the way. However our permission was only as far as the gate, so we checked the outer part for historic signatures (not finding any--only two non-historic ones) and went no further. Two side passages enter the main passage between the gate and the entrance, but the only feature of interest was an incised floor body of ice in the outer one--a crawlway about four feet wide.

At this point we were still undecided about whether to pitch camp or to try to make the round trip in one day--20 miles or so. Although bad weather was closing in, it was 5:30 when we left the cave and it was doubtful that we could get past the single ticklish crevassed part of the glacier by dark so we were inclining toward camping. On the other hand, fairly recent grizzly bear sign inclined us to leave if we could do so. We made much better time than expected--at the cost of pushing ourselves pretty hard--and did get past the tough part and even onto the lateral moraine by dark. However, by this time we were so tired that when we dropped down off the glacier snout we couldn't figure why there was a heckuva large, braided river running across our path, from left to right: much too swift and large to wade. Finally Dale got it: in the pitch black we had come down the moraine into the notch between the main snout and the glare ice body containing the cavernous resurgence of the river, and we had to struggle back up the moraine and over the hump. The outwash plain and the swampy woods and the commando road fragments seemed endless as we plodded along in the dark, and brief showers and gales came and went. Our earlier speed caught up with us, and it was 12:30 AM when we reached the car, too exhausted to do anything except collapse for a full half hour. A memorable day, indeed, and now we know how to do it right!

Crowsnest Pass area, B.C. - Alberta
by Bill Halliday

Several of us had planned to scout the Crowsnest Pass area, on the B.C. - Alberta line, as a substitute for Nakimu on the Labor Day Weekend. However, when the weather turned bad and I sanded the tops off of several toes during our one-day marathon to Castleguard, things rather fell apart. Dale Green decided to go on to the Rocky Mountain Regional at Lovell instead, and the Coughlins and Russ Turner to Glacier National Park. Len and I went to Calgary, but were unable to get in touch with any of the Alberta Speleological Society members there, so went on to Crowsnest Pass where we found out about permission needed to use the coal road and the like. I did hobble the mile along the railroad tracks to The Cave, from which a prominent stream said to be the headwaters of the Old Man River flows into Crowsnest Lake. This may turn out to be the first cave discovered in western Canada. However, it isn't of great interest to cavers other than divers (who may still be able to pass a long siphon here) except historically. Most of the cave is a phreatic rise chamber, barely in the twilight zone, but there is a single tortuous vadose squeezeway that leads back about 50 feet in total darkness to the water table. In the entrance grotto, the water emerges from two small holes and one large one. It is a pretty place to visit, and well worth the hike. Unfortunately,

the historic old sign at the entrance recently has been broken down.

To get to The Cave, take the Summit Cement Works, Ltd., road just west of Crowsnest Pass and drive to the railroad where there is a No Admission sign. Honor the sign; turn right just before the tracks and follow a dirt road that leads almost to the lake. Park in the turnaround, wade the stream, and hike along the tracks alongside the lake for 15 minutes, just passing the Hazell sign which presumably means something to the railroad. Along the way is a smaller stream emerging from brush; I did not investigate its resurgence.

The main Crowsnest Pass cave area is on the other side of the highway, to the south, and high in some magnificent limestone mountains. It looks quite feasible for 3-day or longer trips from Seattle.

Windy Creek, November 12
by Anne R. Ruggles

Bob Brown, Curt Black, and Anne Ruggles decided they would be able to reach Windy Creek Cave without all the trouble everyone else had encountered, and set a date to go: November 12. After listening to everyone's directions, looking at Coughlin's map, and making arrangements to meet two U. S. Forest Service people, we left Marlene's (in Burien) at the absurdly early hour of 3:30 AM. Again [see next report. Ed.] Curt and Canela slept in the back while Bob and I took turns driving through the fog. We met the Forest Service People at 6:10 (Bob insists on exactness) and took the second spur road to the right after getting on the Blue Lake road. We were able to drive to the clearcut. With the Forest Service people leading (and looking for elk) Bob flagged the trail with red and blue flagging. Curt and I photographed a beautiful sunrise and a very clear Mt. Baker. The trail to the cave was about three miles long and took 2 1/2 or 3 hours to walk. Bob led to the cave, and after a few wrong turns got us there.

Bob and the Forest Service people went in first (without coveralls), and Curt and I followed--photographing along the way. We saw two bats--one was hibernating (these made the whole trip for Curt). The cave was relatively dry, and, to quote Bob, "neat, neat, neat, neat!" However, Bob and the Forest Service people wished they had worn coveralls--they were quite muddy. We only had 2 1/2 hours in the cave, as we wanted to be back to the truck by dark. Despite the short time and the mud, the Forest Service people were impressed and enthusiastic about the cave. We decided that the next time we would spend a couple of days there. The way back to the truck was pleasant--the valley was pretty in the low light of sunset and we saw two black bears on the hill above us. We finally returned to Marlene's at 7:30, and she (marvelous lady that she is) had a superb chicken dinner waiting for us.

Papoose Cave, Veterans' Day Weekend
by Anne R. Ruggles

On October 21, Curt Black, Anne Ruggles, and Bill Zarwell left Clear Lake at 3:30 AM to pick up Bob Brown and head for Papoose Cave, Idaho. We drove across White Pass (no snow) with Bill, Bob, and Anne in the front of the truck while Curt and Canela (Irish Setter) slept in the back. We stopped in Yakima for breakfast and in Lewiston (McDonald's) for lunch and finally arrived at our destination well after dark. Bill and Bob started down to the campsite with the first load of Bob's paraphernalia (ice chest, at least four coats, etc.). Meanwhile Curt and I went the wrong way and got lost (I'll never trust Curt's sense of direction in the dark again). Bob and Bill finally saw our lights and yelled. Finally, all the people and gear arrived at the campsite and we slept. 10:30 the next morning people from Idaho came in and woke us up on their way to the cave. We soon followed. Most of the day was

devoted to helping Bob stop the waterfall on the wet 40. With the use of a funnel and an old fire hose, he succeeded--it was a dry drop. Funnel and fire hose were left rolled on a ledge above the creek for others to use. When we had all gotten to the bottom we went on to the 70 by way of the Sand Room and Satori. We met the Idaho people in the Sand Room. Went to bed relatively early anticipating an early start on Saturday. Canela caught and killed a rabbit early that morning and the remains were found by Bill and Bob when they got up. Again we were the last people into the cave; this time people from Idaho and Nevada went down before us. When we went in, Curt and I dropped the (once) wet 40--Bob's contraption was still functional--while Bob and Bill went through the keyhole. We met them in the Vanishing Stairwell after climbing the dry 50. We all went up the Vanishing Stairwell and into Clearwater. While people worked their way through the entrance to Clearwater, Bill played his tin pipe, to the surprise of the Idaho and Nevada people. They were leaving through the Keyhole and could hear the music, but could neither see who it was nor where it came from. We went slowly to the drop--Bill and Curt taking pictures all the way, and myself gawking. We left the cave by 7:30 that night and spent time around a roaring campfire. Sunday morning, after de-rigging the cave and carrying everything back up the hill, we started home. On the way down to Riggins, we stopped and talked to the Idaho and Nevada people again. We were finally on our way by noon. The trip home was uneventful with two exceptions: a marvelous Chinese dinner in Yakima, and a predaceous rock which came lurking from the mists of night and attacked the truck. "Watch for Falling Rocks".

It was a fun trip and well worthwhile: I had never seen anything like Papoose Cave before, and was definitely impressed, as was Bill; and Curt finally got into a CAVE again.

Report on the 11th Thanksgiving Bat
Expedition to the Mt. St. Helens Cave Basalt
by Rod Crawford

Clyde, Stan, and Penny Senger and the writer left Seattle at 10 A.M. on Nov. 26. When we arrived on the Cave Basalt flow, we found conditions there absolutely unprecedented--the day was bright and sunny, and there was virtually no snow anywhere to be seen. For once, the trip into Spider Cave was made in the daytime and I was able to record a good set of directions for finding the cave. I searched for it in vain last July, relying on the memory of a previous trip made in the dark.

Spider Cave is interesting in many ways, with the entrance on an upper level that drops 5' into a lower level which goes both ways. Temperature at the entrance was -0.3° , midway downtube was 3.8° , and 4.4° at the end (all temperatures Celsius). Bats hibernating in the cave included 19 Plecotus townsendi, including band #008, the eighth banded here in December 1965. There were two Myotis lucifugus. This is a slight gain over two years ago, but not much considering the original population of 300 in 1965. Very likely someone is still visiting the cave in the winter. Nelima harvestmen and Triphosa moths were noted in the cave.

I showed Clyde the entrance of Gremlin Cave and we discussed several small caves that he has found in the area over the years but could not relocate.

On the 29th, Clyde, Stan, and I hiked in to Bat Cave, this time parking before the mud puddles. We first stopped to look into Powerline Cave but found no bats there, although there was a small deposit of Plecotus guano. Then, before reaching Bat Cave, we stopped to confirm the existence of Two-Column Cave, which I entered. It was first explored by Drs. Senger and Halliday

on July 22, 1967. The inconspicuous entrance is at the very edge of the flow. It leads to a 50'-70' long three-foot high crawlway which follows a twisting course, and contains a number of interesting flow features including two small, slanting columns side-by-side in the entrance section.

Bat Cave contained a total of 72 bats (9 with bands) and three students with flashlights who were studying the movements of the bats by tying ribbons on rocks every 50 feet and sticking dabs of putty on the ceiling by hibernating bats. I did not get their names or any information about them. I hope their disturbance doesn't affect the bat population (which is slightly down from last year) and that they plan ultimately to remove their ribbons and putty.

Two of the banded bats had bands from the original 1966 banding in Bat Cave, one from the 1965 banding in Spider Cave. (The latter are the oldest Plecotus now known).

Finally we paid a visit to the downtube end of Prince Albert Cave, finding no bats. However, there were the usual overwintering moths and harvestmen, as in Spider Cave, and I collected a small milliped. In one place on the floor were several broken snail shells, the first I know of in a lava tube. How they got there is a mystery. A group of large puffball-like fungi were growing on the ceiling not far uptube from the entrance.

That cold night we looked for harvestmen on restroom walls at Beaver Bay Camp, and harvested about a hundred. I was dropped in Seattle at 5:30 Sunday after a most productive trip.

Big Four Glacier Cave
Sunday, December 12
by Rod Crawford

On this relatively fine day, I escorted Joyce Thompson and three ouigees (David Gordon, Sharon Olds, and Mark Bonin) through their first glacier cave. In the case of the last two, it was their first cave as well.

The road to the parking lot was snow-free and the trail to the cave almost so. I was shocked to find that the Forest Service has built a boardwalk over the swamp one formerly had to wade as part of the trail. Alas--now I, with my rubber boots, will no longer be the only one with dry feet on this trail. There were various other improvements to the trail. The stream one formerly had to wade near the end was dry also. There were no improvements to the cave, however.

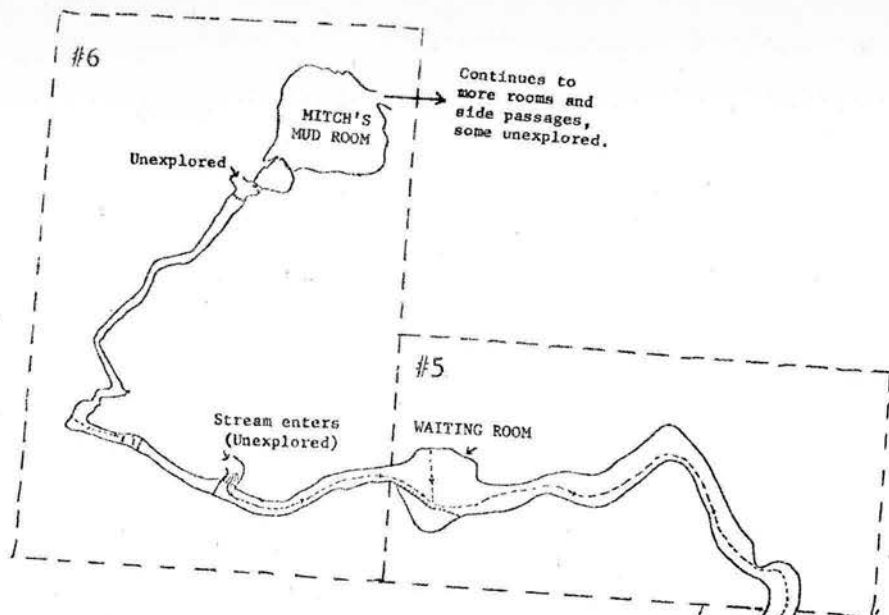
A month or so ago, Bill Capron and in-laws visited the cave, and Bill reported lots of walking passage and a dry waterfall. Things have changed. The last half of the cave is now the most miserable kind of duckwalk passage. After duckwalking in and out, I was walking in a sort of controlled stagger. I noticed a good deal of new flake development throughout the cave, but only one fallen flake. There were no fallen flakes at all in the Cathedral Room, the first time I have seen it so.

The latter was its usual impressive self, complete with waterfall in full roar. The ouigees were so impressed that they stayed there for more than half an hour, despite the spray.

After emerging from the main cave, we debated the possibility of visiting the Middle and West Caves, but finally decided not to.

I hope we will be seeing a lot more of David, Sharon, and Mark.

* * * * *
* * * *

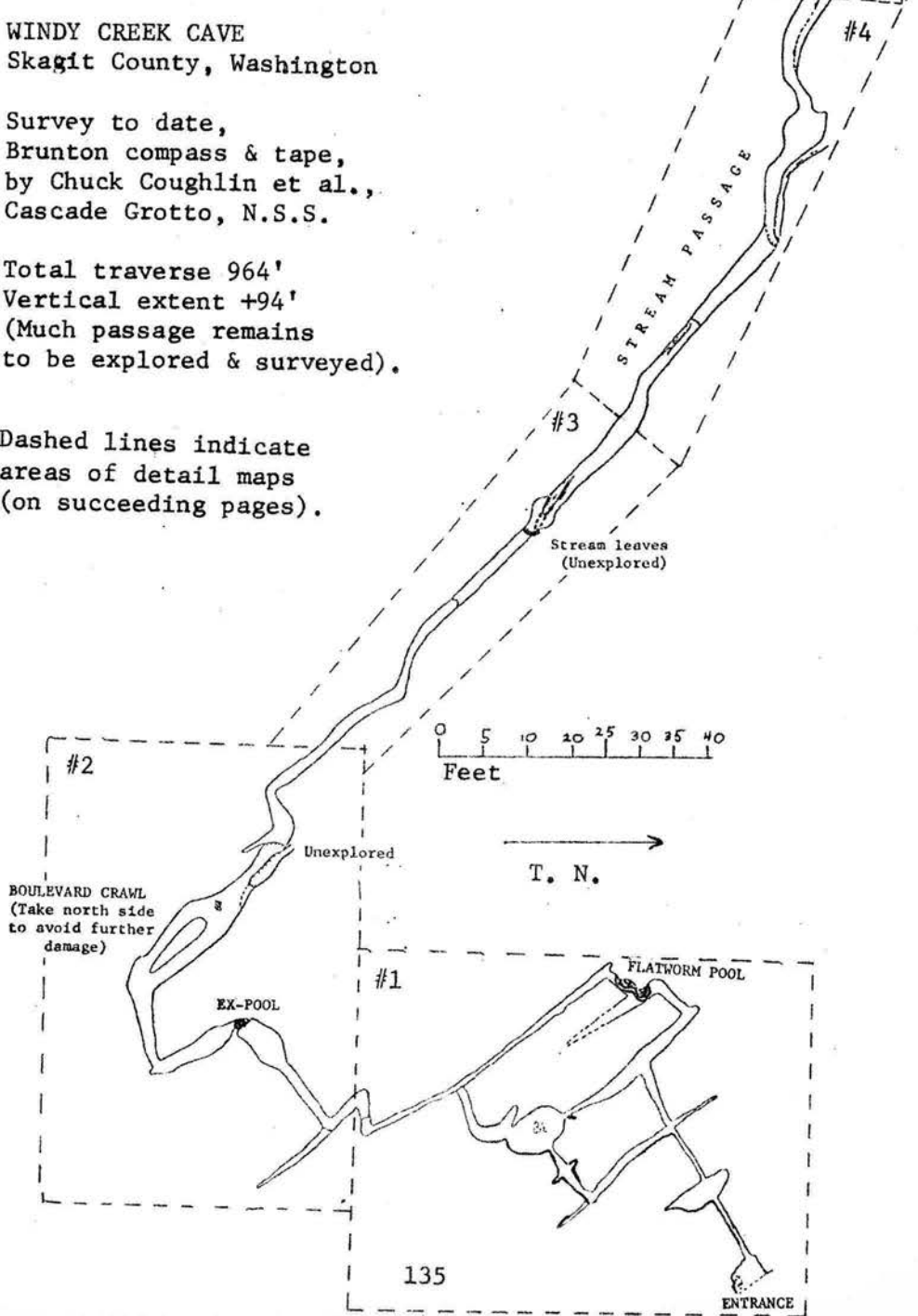


WINDY CREEK CAVE
Skagit County, Washington

Survey to date,
Brunton compass & tape,
by Chuck Coughlin et al.,
Cascade Grotto, N.S.S.

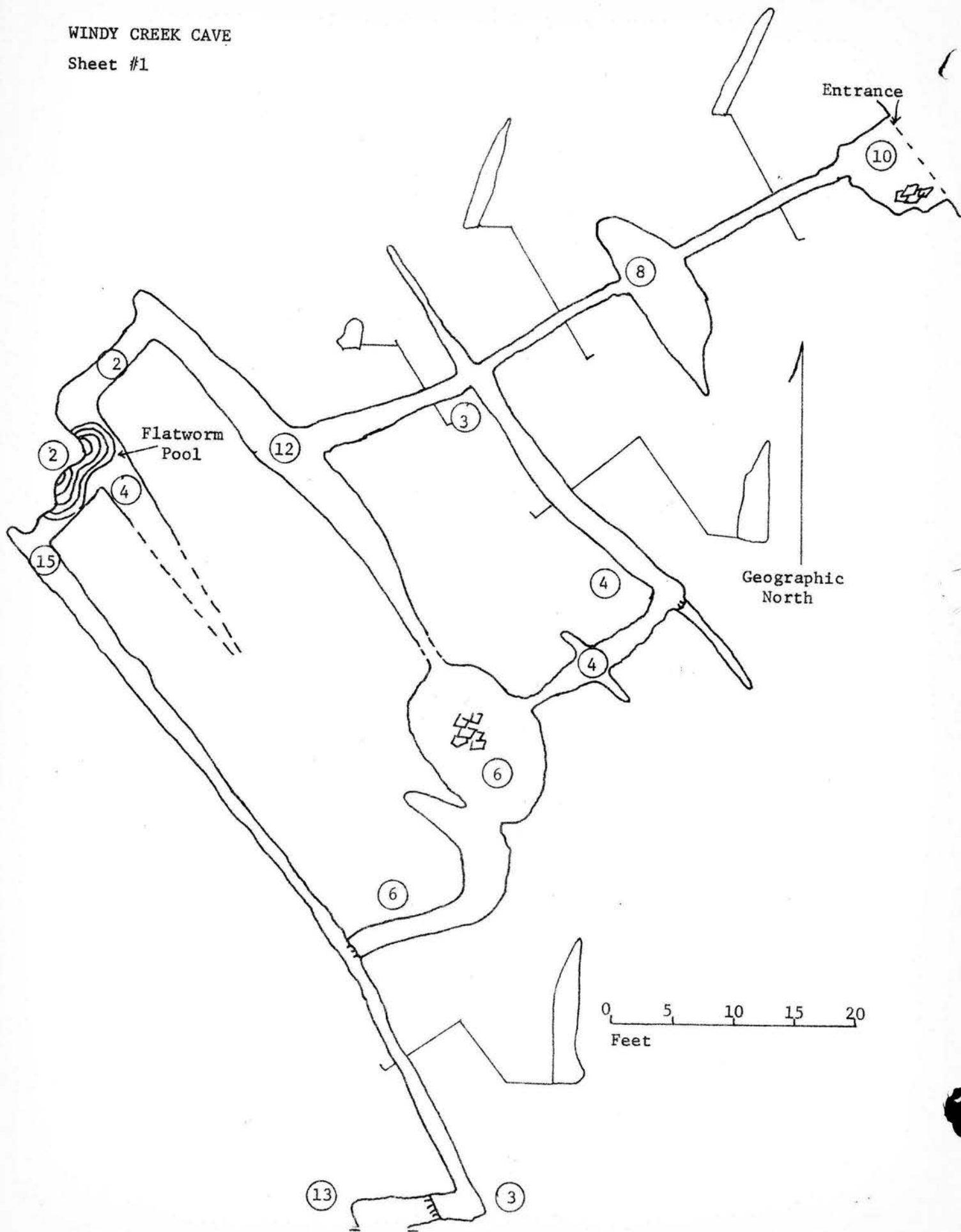
Total traverse 964'
Vertical extent +94'
(Much passage remains
to be explored & surveyed).

Dashed lines indicate
areas of detail maps
(on succeeding pages).



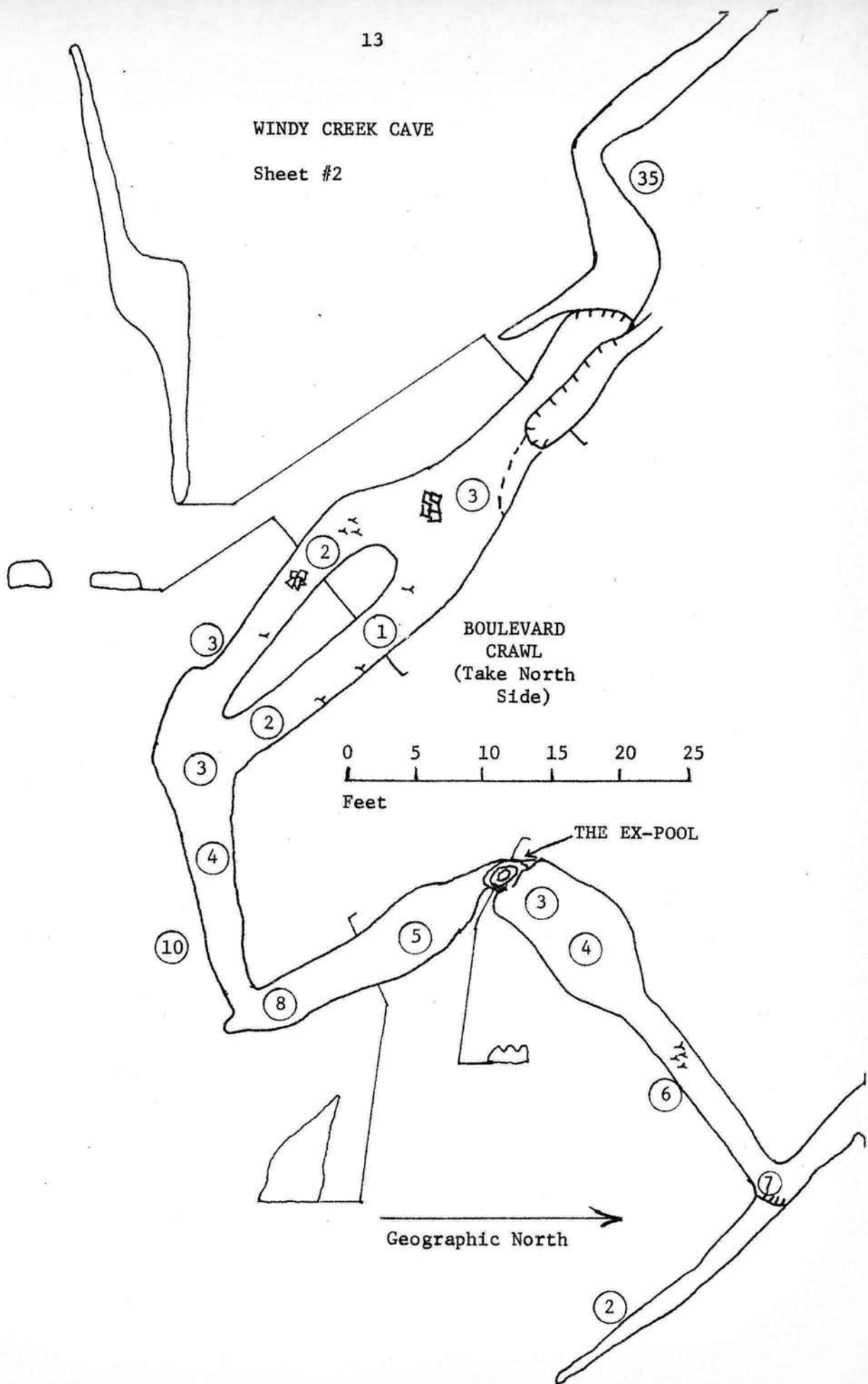
WINDY CREEK CAVE

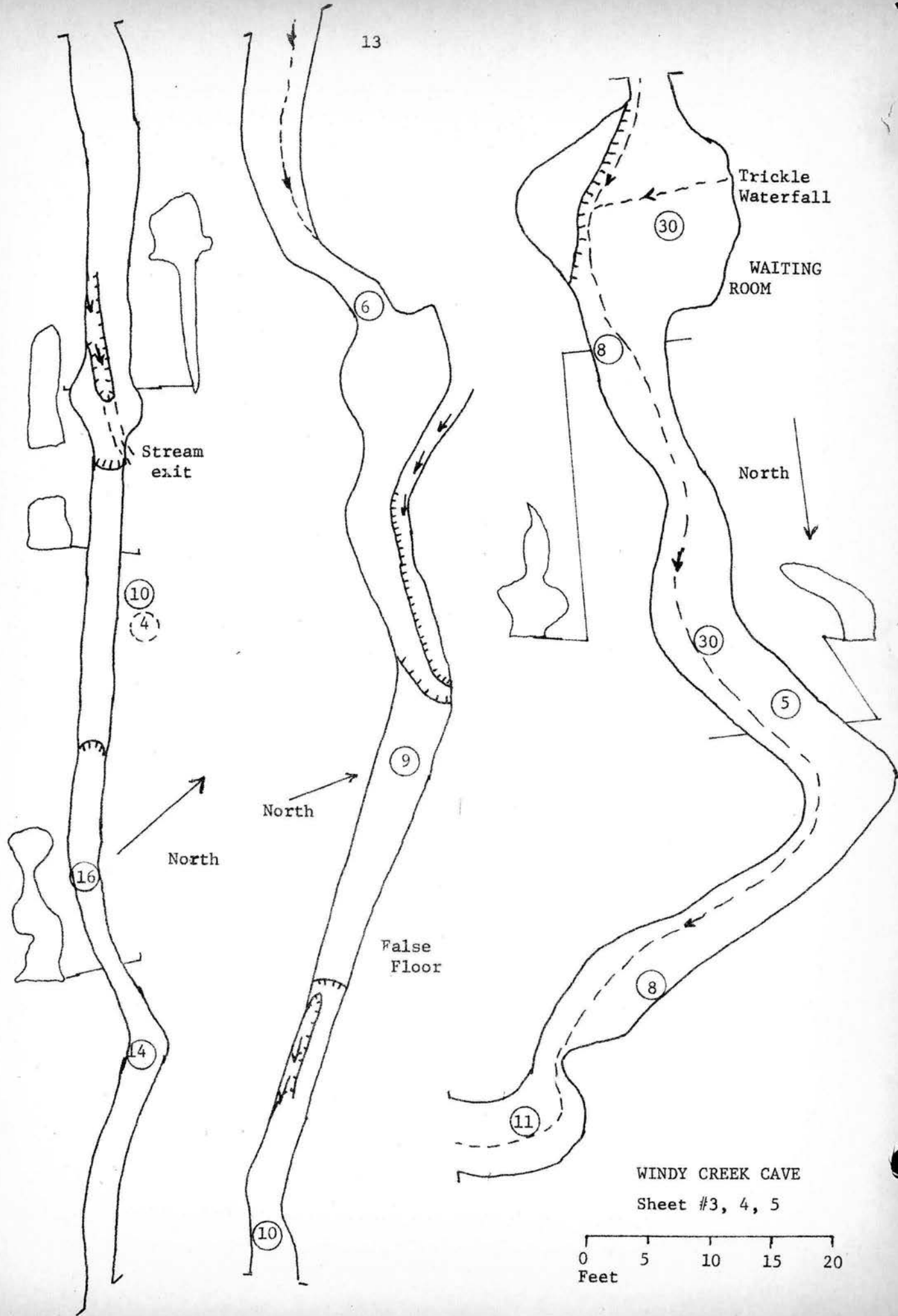
Sheet #1



WINDY CREEK CAVE

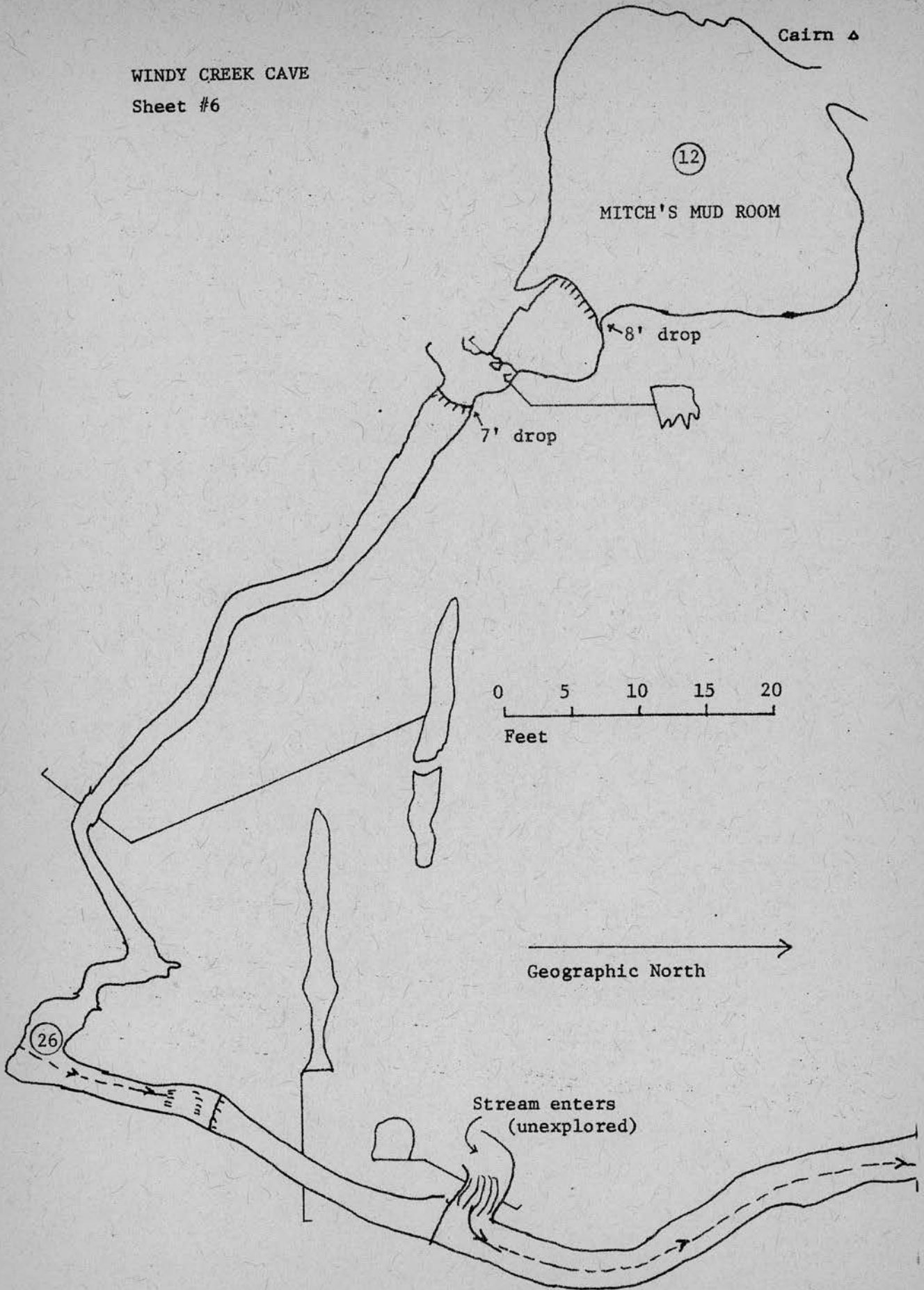
Sheet #2





WINDY CREEK CAVE

Sheet #6



CASCADE GROTTO MEMBERSHIP LIST

December 15, 1976

Compiled by the Joint Efforts of the Secretary and Editor

S= subscriber; A=associate member; H = honorary member

| | | Expires |
|---|---------------------|----------|
| Brandeberry, Alan | | |
| 264 169th Ave. NE, Bellevue WA 98008 | 747-6297 | 7-77 (S) |
| Brannon, David | | |
| 726 Pasadena, Tacoma WA 98466 | (206) 564-8209 | 12-77 |
| Brown, Bob | | |
| P.O. Box 2, Elbe WA 98330 | (206) 569-2724 | 7-77 |
| Campbell, Newell | | |
| 6605 N Apple View, Yakima WA 98902 | (509) 966-1516 | 3-77 |
| Capron, Bill | | |
| 10006 Greenwood Ave. N, Seattle WA 98133 | 784-8497 | 11/77 |
| Cebell, Wayne | | |
| Rt. 7, Box 686, Olympia WA 98506 | (206) 491-6219 | 6/77 |
| Coughlin, Charles | Secretary-Treasurer | |
| 6433 S. 128th Place, Seattle WA 98178 | 772-1170 | 6-77 |
| Crawford, Ed, Mary, Janet, Jim, Tom, Sharon | | |
| 5521 36th Ave. NE, Seattle WA 98105 | 522-1203 | 5-77 |
| Crawford, Rod | Editor | |
| Burke Museum (DB-10), U. of Wash., Seattle WA 98195 | 543-4486 | 6-77 |
| Grandstaff, Wes | | |
| 915 Queen Anne Ave. N. #201, Seattle WA 98109 | 283-0583 | 9-77 |
| Halliday, William, Marcia, Patricia, Röss | | |
| 1117 36th Ave. E., Seattle WA 98112 | EA4-7474 | 3-77 |
| Harter, Russell | | |
| 2801 Sanborn Ave., Venice CA 98291 | | 6-77 (S) |
| Ireton, Frank | | |
| Box 356 Mountain Home, Mountain Home ID 83647 | (208) 587-7105 | 1-77 (S) |
| Kiver, Dr. Eugene | | |
| Geology, E.W.S.C., Cheney WA 99004 | (509) 235-6448 | 7-77 |
| Klinger, Col. David | | |
| 80 Birch Hill Dr., Fort Richardson AK | | 9-77 (S) |
| Larson, Charles | | |
| 13402 NE Clark Rd., Vancouver WA 98665 | (206) 573-1782 | 9-77 (S) |
| Magee, Maurice | | |
| 4220 S. 177th, Seattle WA 98199 | 243-7958 | 4-77 |
| MacLeod, Barbara | | |
| 1307 1/2 Kirkwood, Austin TS 78722 | | (H) |
| McTigue, Larry | | |
| 2719 Meadow Ave. N, Renton WA 98055 | 255-3406 | 8-77 |
| Mundt, Ruth | | |
| 12412 42nd NE, Seattle WA 98155 | | 1-77 |
| Nelson, Les | | |
| 15340 Stone Ave. N, Seattle WA 98133 | 365-4123 | 6-77 |
| Pugh, Stan | Chairman | |
| 2521 N. Proctor, Tacoma WA 98406 | (206) SK9-6211 | 3-77 |
| Ramsey, Hank | | |
| 23235 10th Ave. S, Des Moines WA 98188 | TA4-1807 | 1-77 |
| Ridley, Dave | | |
| 8204 W. 42nd, Tacoma WA 98466 | (206) 564-2073 | 9-77 |
| Roberts, Jan | | |
| 5706 236th SW, Mountlake Terrace WA 98043 | PR8-8503 | 12-76 |

| | | |
|--|----------------|-----------|
| Rockwell, Julius, Elizabeth
2944 Emory St., Anchorage, AK 99504 | (907) 277-7150 | 3-77 |
| Ross, Charles
1541 16th Ave. E, Seattle WA 98112 | 324-9349 | 2-77 |
| Ruggles, Anne
P.O. Box 147, Eatonville WA 98328 | (206) 832-6352 | 1-77 |
| Seattle Public Library, Serials Division
1000 4th Ave., Seattle WA 98104 | | 7-77 (S) |
| Senger, Clyde
1103 Yew St., Bellingham WA 98225 | (206) 734-1360 | 11-76 (S) |
| Sexton, Dave
7404 NE 143rd, Bothell, WA 98011 | 822-9558 | 11-77 |
| Staley, Dr. James
Microbiology (SC-15), U. of Wash., Seattle WA 98195 | 543-6646 | 10-76 |
| Thompson, Joyce
4009 15th NE, #824, Seattle WA 98105 | no phone | 9-77 (S) |
| Torkelson, John
2008 SE 16th Court, Renton WA 98055 | 852-0195 | 8-77 |
| Tower, Robert
P.O. Box 20, Mercer Island, WA 98040 | 455-4338 | 9-77 |
| Turner, Russ
416 W. Fulton St., Seattle WA 98119 | 284-1125 | 9-77 (A) |
| Unger, Bruce
Computer Sci. (FC-10), U. of Wash., Seattle WA 98195 | | 12-76 (S) |
| University of Washington Library, Serials Division
University of Washington, Seattle WA 98195 | | 1-78 (S) |
| Walker, David
3860 W. Mercer Way, Mercer Island WA 98040 | 486-1912 | 4-77 (A) |
| Washington State Library, Serials Section
Olympia, WA 98604 | | 6-77 (S) |

MEMBERS RECENTLY LAPSED OR DELINQUENT IN DUES

| | | Date lapsed |
|--|----------|-------------|
| Anderson, Chas. H., Jr.
13205 132nd NE, Apt. 15B, Kirkland WA 98033 | 827-5106 | 1-76 |
| Cady, Greg
1223 NW 95th, Seattle WA 98117 | 784-6608 | 6-76 |
| Kay McKinney
1442 Rainier Drive, Tacoma WA 98466 | 565-1627 | 8-76 |
| Miller, Chris
1547 S. Shelton, Seattle WA 98108 | R02-7585 | 9-76 |
| Walsh, Wallace
1075 Terrace Dr., Snohomish WA | 568-5936 | 4-76 |

Presumably some of the above have merely forgotten their dues, and will be reinstated at some future date.

+ + + + + + +
+ + + + +

CASCADE GROTTO STORE
 Bill Capron, Keeper: Phone 784-8497
 Price List, October 1976

BE SURE TO ATTEND
 THE CASCADE

| | |
|---------------------------|--------|
| Cave Packs | \$1.50 |
| Carbide | 50¢/lb |
| Judson kneepads, pair | 4.50 |
| Helmets | * |
| Chin straps | .85 |
| Premier Carbide Lamps | 8.75 |
| Lamp Brackets | 1.00 |
| Lamp felts | 2/15¢ |
| Lamp tips | .20 |
| Lamp flints | 3/25¢ |
| Lamp gaskets | .10 |
| MSA Nickel-Iron headlamps | * |
| Gibbs ascenders (spring) | 8.50 |
| Gibbs (quick release) | 10.50 |
| Bonaiti D Carabiners | 2.50 |
| Bonaiti Locking D | 3.25 |
| Cascade Grotto Patches | 1.50 |
| Cascade Grotto decals | .25 |
| NSS Decals | .20 |

*Contact keeper for information
 Quantities are limited in some cases.
 If you want any caving-related equipment not listed here, please ask for it. The store is here to serve you, so take advantage of it--B. C.

GROTTO
 CHRISTMAS PARTY

!!!!!!!!!!!!!!!!!!!!

There should be a separate information sheet in this issue about the grotto Christmas Party. But in case something went wrong, here is the schedule for the day's activities:
 Saturday, December 18

12:30. Leave from the Clear Lake "Paradise" (Eatonville) on wood-cutting trip. Latecomers for this congregate at Bob Brown's house, Elbe.
 6:00. Arrive for party at the "Paradise" (Curt & Annie's house).
 7:00. Food (potluck) begins.
 GOKW. Party ends (?).

For location of the "Paradise", where the party will be, see the map somewhere in this issue.

THE CASCADE CAVER
 207 Hub (FK-10) Box 98
 University of Washington
 Seattle WA 98195

Take
 Nothing
 But
 Pictures
 Leave
 Nothing
 But
 Footprints

THERE WILL BE NO DECEMBER MEETING. JANUARY MEETING IS MONDAY THE 17TH.